

**Remarks**

This Application has been carefully reviewed in light of the Office Action dated September 16, 2009. Applicants believe all claims are allowable without amendment and respectfully provide the following remarks. Applicants respectfully request reconsideration and allowance of all pending claims.

**I. Consideration of Previously-Submitted Information Disclosure Statement (IDS)**

Applicant timely filed an IDS on March 26, 2008, as evidenced by Acknowledgement Receipt EFS ID No. 3055066 and e-filer via RAM Confirmation No. 8660. It appears, however, that the Examiner did not consider the references cited in the timely-filed IDS. *See Office Action* at 7-8. The Examiner states that the IDS fails to comply with 37 C.F.R. § 1.98(a)(1), alleging that “[t]he information disclosure statement has been placed in the application file, but the information referred to therein has not been considered as there is no prior art listing found in [the] IDS submitted on March 26th, 2008.” *Id.* at 7-8. Applicants respectfully disagree. Applicants attach hereto in Appendix A a copy of the above-identified Acknowledgement Receipt, the IDS Transmittal Letter, and the PTO-1449 form, as retrieved from PAIR, all of which were filed March 26, 2008. Additionally, attached hereto in Appendix A is a print-out of the Image File Wrapper for this application (available on PAIR), which further shows that these documents were filed on March 26, 2008. *See Image File Wrapper* at pg. 4 of 6. The PTO-1449 provides the “listing” alleged to be missing by the Examiner (though, as stated in the IDS Transmittal Letter, Applicants make no representation that the document listed on the PTO-1449 form qualify as prior art).

In light of the above and pursuant to controlling authority, Applicants respectfully request that the Examiner consider all of the references cited in the IDS dated March 26, 2008, and, in the event a patent issues on this Application, that these references be printed on the face of the issued patent. *See, e.g.*, 37 C.F.R. § 1.97; M.P.E.P. ch. 609. Applicant respectfully requests that the Examiner confirm in the next written communication that the Examiner has considered each reference cited in the IDS (e.g., by initialing next to each reference on the PTO-1449 form that accompanied the IDS). Furthermore, Applicant respectfully requests a copy of the PTO-1449 form for the IDS indicating the Examiner’s consideration of all of the cited references. Alternatively, if the Examiner maintains that

“there is no prior art listing found in IDS submitted on March 26th, 2008,” Applicants respectfully request that the Examiner more fully describe the basis for that allegation.

**II. The Claims are Allowable over the Proposed *Brownell-Aziz-Marsh* Combination**

The Examiner rejects Claims 1-45 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 7,231,430 to Brownell et al. (“*Brownell*”), U.S. Patent 6,597,956 to Aziz et al. (“*Aziz*”), and U.S. Patent 7,055,148 to Marsh et al. (“*Marsh*”). Applicants respectfully traverse this rejection and discuss independent Claim 1 as an example.

Applicants maintain that the proposed *Brownell-Aziz-Marsh* combination fails to support the rejection of Claim 1 for at least the three reasons described in Applicants’ Response under 37 C.F.R. § 1.116 filed June 17, 2009 (the “Final Response”). First, the rejection is improper because the proposed modification in view of *Marsh* would render *Brownell* and *Aziz* unsatisfactory for their intended purposes. Applicants further note that the rejection is improper because the proposed modification in view of *Marsh* would impermissibly change the principle of operation of both *Brownell* and *Aziz*. Second, the proposed *Brownell-Aziz-Marsh* combination fails to disclose, teach, or suggest “resetting a boot image of the selected node based at least in part on the retrieved policy” that is “associated with the distributed application,” as recited in Claim 1. Third, the proposed *Brownell-Aziz-Marsh* combination fails to disclose, teach, or suggest “associating a virtual disk image with the selected node based at least in part on the retrieved policy,” as recited in Claim 1. Applicants reproduce below substantially similar arguments to those presented in the Final Response, and address the Examiner’s responses to those arguments as presented in the Office Action.

First, the rejection is improper because the proposed modification in view of *Marsh* would render *Brownell* and *Aziz* unsatisfactory for their intended purposes. “Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418, 127 S. Ct. 1727, 1741, 82 U.S.P.Q.2d 1385, 1396 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Furthermore, the M.P.E.P. explicitly states, “If [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended

purpose, then there is no suggestion or motivation to make the proposed modification.” M.P.E.P. § 2143.01 (emphasis added); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416, 127 S.Ct. 1727, 1740 (when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious). Additionally, “[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead way from the claimed invention.” M.P.E.P. § 2141.02(VI) citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984) (emphasis in original).

An intended purpose of *Brownell* is to provide a control node that assists in deploying virtualized processing area networks. *Brownell* at 3:4-8. To achieve this purpose, *Brownell* permits communication from the control node but restricts communication between processing nodes. *Brownell* at 4:51-55. Specifically, *Brownell* states that the “management logic and the control node logic are responsible for establishing, managing and destroying communication paths. The individual processing nodes are not permitted to establish such paths.” *Id.* (emphasis added). *Brownell* further states that “by having communication paths managed and created centrally (instead of via the processing nodes) such a path is not creatable by the processing nodes, and the defined subnet connectivity cannot be violated by a processor.” *Brownell* at 5:39-45. Thus, *Brownell* explicitly restricts processing nodes from establishing communication paths.

In contrast to *Brownell*, the cited portion of *Marsh* discloses a “ring configuration” of network nodes. *Marsh* at 8:35 – 9:23 and Fig. 5. *Marsh* emphasizes that the ring configuration provides bi-directional communication between the network nodes, which permits a firmware patch to be distributed to networked computer systems. *Id.* The Examiner seems to propose modifying *Brownell* to permit the distribution of the firmware patch between network nodes, as described in *Marsh*. *Office Action* at 9. However, modifying the processing nodes in *Brownell* to distribute a firmware patch among one another, as disclosed in *Marsh*, would render *Brownell* unsatisfactory for its intended purpose. Such a modification would require establishing communication paths between *Brownell*'s processing nodes, which would defeat *Brownell*'s purpose of restricting

communication paths between processing nodes. *Brownell* at 4:51-55. Thus, the proposed modification would render *Brownell* unsatisfactory for its intended purpose.

Similarly, to the extent the Examiner proposes modifying *Aziz* in view of *Marshall*, such modification would render *Aziz* unsatisfactory for its intended purpose. The cited portion of *Aziz* discloses a computing grid comprising virtual server farms (VSFs). *Aziz* at 19:45 – 21:17. *Aziz* expressly restricts communication between VSFs. Specifically, *Aziz* states: “VSFs in a computing grid must not be allowed to communicate with each other to prevent one VSF from in any way causing a change in the configuration of another VSF.” *Id.* (emphasis added). Modifying the architecture of *Aziz* to permit the distribution of a firmware patch between network nodes, as described in *Marsh*, would render *Aziz* unsatisfactory for its intended purpose. Such a modification would allow the VSFs to communicate with each other to distribute the firmware patch, which would defeat *Aziz*’s purpose of preventing communication between VSFs. *Id.* Thus, the proposed modification would render *Aziz* unsatisfactory for its intended purpose.

Because the proposed modification in view of *Marsh* would render *Brownell* and *Aziz* unsatisfactory for their intended purposes, there is no suggestion or motivation for the proposed *Brownell-Aziz-Marsh* combination of references. Accordingly, the *Brownell-Aziz-Marsh* combination should be withdrawn.

In response these arguments, the Examiner states that these arguments are “not persuasive as the arguments presented by applicant’s are directed to [a] different analysis that are clearly different than what the examiner has issued in [the] previous office action.” *Office Action* at 2-3. The Examiner states that “the fact that applicant has recognized another advantage which would flow naturally from following the suggestions of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.” *Office Action* at 3. Finally, the Examiner raises case law regarding hindsight reconstruction. *Id.*

The Examiner’s response to Applicants’ arguments does not appear to respond to the substance of Applicants’ arguments. The controlling authority is clear that “[i]f [the] proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed

modification.” M.P.E.P. § 2143.01 (emphasis added); *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416, 127 S.Ct. 1727, 1740 (when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious). Applicants have demonstrated above that modifying each of *Brownell* and *Aziz* with *Marsh* would render both *Brownell* and *Aziz* unsatisfactory for their respective purposes. Regarding the Examiner’s comment related to recognition of another advantage, Applicants do not see the pertinence of this statement with respect to the combination of references proposed by the Examiner. In making the above argument, Applicants have not even explicitly raised any advantages of Applicants’ invention, but have addressed the impropriety of the combination of references proposed by the Examiner. Regarding the Examiner’s comment regarding hindsight reconstruction, while Applicants believe the Examiner has engaged in such improper hindsight reconstruction of Applicants’ claims, this point is not central to Applicants’ argument that the proposed combination would render the prior art invention being modified unsatisfactory for its intended purpose.

Further, the Examiner states that “the person skilled in the art would clearly recognizes Brownell, Marsh, and Aziz are from the same field of endeavor as they all are directed to processing and managing of [a] computing system. As such no unsatisfactory result or improper result would be constructed when all cited prior arts are directed to [the] same field of endeavor . . . .” *Office Action* at 7. The fact that multiple references may be in the same field of endeavor (and Applicants make no concession that the cited references are, in fact, in the same field of endeavor) does not resolve whether the references are properly combinable.

Applicants further note that the rejection is improper because the proposed modification in view of *Marsh* would impermissibly change the principle of operation of both *Brownell* and *Aziz*. “If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious.” *See* M.P.E.P. § 2143.01 citing *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959). First, modifying the processing nodes in *Brownell* to distribute a firmware patch among one another, as disclosed in *Marsh*, would destroy the principle of operation of *Brownell*. Such a

modification would require establishing communication paths between *Brownell*'s processing nodes, which would destroy the principle of operation in *Brownell* restricting communication paths between processing nodes. *Brownell* at 4:51-55. Second, modifying the architecture of *Aziz* to permit the distribution of a firmware patch between network nodes, as described in *Marsh*, would destroy the principle of operation of *Aziz*. Such a modification would allow the VSFs to communicate with each other to distribute the firmware patch, which would destroy the principle of operation in *Aziz* of preventing communication between VSFs. *Id.*

Because the proposed modification in view of *Marsh* would destroy the principle of operation of both *Brownell* and *Aziz*, the teachings of the references are not sufficient to render the claims *prima facie* obvious. Accordingly, the *Brownell-Aziz-Marsh* combination should be withdrawn.

Second, the proposed *Brownell-Aziz-Marsh* combination fails to disclose, teach, or suggest "resetting a boot image of the selected node based at least in part on the retrieved policy" that is "associated with the distributed application" as recited in Claim 1. The Examiner relies on *Aziz* for the "retrieved policy" recited in Claim 1. *Office Action* at 6. The cited portion of *Aziz* merely discloses a policy-based rule for adding a Web server to a virtual server farm (VSF) and enforcing firewalling between VSFs according to policy rules. *Aziz* at 11:7-15; 21:9-17. Even assuming for the sake of argument that the policy-based rule or the policy rules in *Aziz* could properly be considered a "policy," as Claim 1 recites, *Aziz* would still fail to disclose, teach, or suggest the policy-based rule or the policy rules in *Aziz* being in any way "associated with the distributed application," as Claim 1 recites. (Emphasis added).

The cited portions of *Brownell* and *Marsh* fail to cure this deficiency of *Aziz*. Notably, the Examiner admits that "*Brownell* is silent about the policy associated with the distributed application." *Office Action* at 9. In addition, even assuming for the sake of argument that applying *Marsh*'s firmware patch could properly be considered "resetting a boot image" (which Applicants do not admit), there is nothing in *Marsh* that teaches, suggests, or discloses a policy "associated with the distributed application," as Claim 1 recites. Thus, the proposed *Brownell-Aziz-Marsh* combination fails to disclose, teach, or suggest "resetting a boot image of the selected node based at least in part on the retrieved

policy” that is “associated with the distributed application” as recited in Claim 1. Accordingly, the proposed *Brownell-Aziz-Marsh* combination fails to support the rejection of Claim 1.

In response to these arguments, the Examiner states the following:

Before, examiner provides examiner interpretation to claim language to clarify the prima facie rejection, examiner would like to point out that applicants’ arguments with respect to “resetting a boot image of the selected node based at least in part on the retrieved policy” that is “associated with the distributed application” is baseless as the claims fail to disclose any association of boot image with the distributed application. Applicant’s argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., “resetting a boot image of the selected node based at least in part on the retrieved policy” that is “associated with the distributed application”) are not recited in the claim(s).

*Office Action* at 3-4. Applicants plainly argued, and the claim clearly recites, “resetting a boot image of the selected node based at least in part on the retrieved policy” that is “associated with the distributed application.” In particular, Claim 1 recites “retrieving a policy associated with the distributed application” and “resetting a boot image of the selected node based at least in part on the retrieved policy.” Since the reference to “the retrieved policy” plainly refers to the policy retrieved in the first of these two limitations, the retrieved policy is “associated with the distributed application,” as claimed. The Examiner seems to acknowledge this point in the first full paragraph on page 4 of the Office Action. Thus, Applicants’ arguments are based on the language as recited in the claim.

The Examiner continues by simply reproducing the title and abstract of each reference and then stating the following:

Therefore, the person skilled in the art would clearly recognize Brownell, Marsh, and Aziz are from the same field [of] endeavor as they all are directed to processing and managing of [a] computing system. As such no unsatisfactory result or improper result would be constructed when all cited prior arts are directed to [the] same field of endeavor and one having ordinary skill[] in the art would be motivated to combine the teachings of Aziz, Marsh with Brownell to provide a computer platform [that] includes a plurality of computer processors connected to a communication network that provides a highly scalable controlling and managing storage devices coupled to storage networks or switches and provides a highly scalable computing system that supports creation of multiple segregated processing nodes whereas each processing node comprises a fixed storage device containing a boot image

configured with an appropriate code or instruction to execute data necessary to perform firmware upgrade and installation.

Office Action at 5-7.

First, simply reproducing the Titles and Abstracts, without any supporting explanation does not provide a substantive response to the particular arguments raised by Applicants. Second, the Examiner's statement reproduced in the block quote above does not even refer to Applicants' particular claim language or how the cited portions actually map to the particular claim language in a way that explains why Applicants' arguments above are incorrect. Applicants have explained clearly and in detail above how *Brownell*, *Aziz*, and *Marsh* fail to disclose, teach, or suggest "resetting a boot image of the selected node based at least in part on the retrieved policy" that is "associated with the distributed application" as recited in Claim 1. Since it does not appear that the Examiner has provided a substantive response to those arguments, Applicants reiterate the arguments presented above.

Third, the proposed *Brownell-Aziz-Marsh* combination fails to disclose, teach, or suggest "associating a virtual disk image with the selected node based at least in part on the retrieved policy" as recited in Claim 1. The Office Action relies on *Brownell* for this aspect of Claim 1. *Office Action* at 5. However, the cited portion of *Brownell* merely discloses a hardware platform that includes processing nodes connected to a switching fabric via a high-speed interconnect. *Brownell* at 2:56-67. Each processing node is a board that includes processors, network interface cards, and local memory that includes some BIOS firmware for booting and initialization. *Brownell* at 3:13-17. Control nodes connected to the switch fabric are each a single board that includes processors, local memory and local disk storage for holding independent copies of the boot image and initial file system that is used to boot OS software for the processing nodes and the control nodes. *Brownell* at 3:21-26. Even assuming for the sake of argument that the independent copies of the boot image and initial file system in *Brownell* could properly be considered a "boot image of the selected node" (which Applicants do not admit), *Brownell* would still fail to disclose, teach, or suggest "dynamically selecting one of a plurality of nodes" and "associating a virtual disk image with the selected node" as recited in Claim 1. *Aziz* and *Marsh* fail to cure this deficiency of *Brownell*. Accordingly, the proposed *Brownell-Aziz-Marsh* combination fails to disclose, teach, or suggest each element of Claim 1.

In response to these arguments, the Examiner simply reproduces the title and abstract of each reference and then provides the comments reproduced in the above block quote. *Office Action* at 5-7. As discussed above, simply reproducing the Titles and Abstracts, without any supporting explanation does not provide a substantive response to the particular arguments raised by Applicants. Additionally, the Examiner's statement reproduced in the block quote above does not even refer to Applicants' particular claim language or how the cited portions actually map to the particular claim language in a way that explains why Applicants' arguments above are incorrect. Applicants have explained clearly and in detail above how *Brownell*, *Aziz*, and *Marsh* fail to disclose, teach, or suggest "associating a virtual disk image with the selected node based at least in part on the retrieved policy" as recited in Claim 1. Since it does not appear that the Examiner has provided a substantive response to those arguments, Applicants reiterate the arguments presented above.

For at least these reasons, Applicants respectfully request reconsideration and allowance of independent Claim 1 and its dependents.

In rejecting Claims 16 and 31, the Office Action employs the same rationale used to reject Claim 1. Accordingly, for at least certain reasons analogous to those stated above with respect to independent Claim 1, Applicants respectfully request reconsideration and allowance of independent Claims 16 and 31 and their respective dependents.

### **III. No Waiver**

All of Applicants' arguments are without prejudice or disclaimer. Additionally, Applicants have merely discussed example distinctions from the references cited by the Examiner. Other distinctions may exist, and Applicants reserve the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements. The example distinctions discussed by Applicants are sufficient to overcome the Examiner's rejections.

**Conclusion**

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this Application in any manner, the Examiner is invited to contact Chad D. Terrell, Attorney for Applicants, at the Examiner's convenience at (214) 953-6813.

Although Applicants believe that no fees are due, the Commissioner is hereby authorized to charge any necessary fees and to credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,  
BAKER BOTTS L.L.P.  
Attorneys for Applicants



Chad D. Terrell  
Reg. No. 52,279

Date: December 16, 2009

**Correspondence Address:**

at Customer No.

**45507**

## APPENDIX A

## Electronic Acknowledgement Receipt

<b>EFS ID:</b>	3055066
<b>Application Number:</b>	10825345
<b>International Application Number:</b>	
<b>Confirmation Number:</b>	8660
<b>Title of Invention:</b>	System and method for computer cluster virtualization using dynamic boot images and virtual disk
<b>First Named Inventor/Applicant Name:</b>	Shannon V. Davidson
<b>Customer Number:</b>	5073
<b>Filer:</b>	Travis W. Thomas/Darla Rupert
<b>Filer Authorized By:</b>	Travis W. Thomas
<b>Attorney Docket Number:</b>	064747.1011
<b>Receipt Date:</b>	26-MAR-2008
<b>Filing Date:</b>	15-APR-2004
<b>Time Stamp:</b>	15:23:00
<b>Application Type:</b>	Utility under 35 USC 111(a)

### Payment information:

Submitted with Payment	no
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### File Listing:

Document Number	Document Description	File Name	File Size(Bytes) /Message Digest	Multi Part /.zip	Pages (if appl.)
1		1011ids.pdf	73065 3f7cd2cee9099dfa54e4b57f95cef57f27 0d369e	yes	2

ATTORNEY DOCKET  
064747.1011

PATENT APPLICATION  
10/825,345

1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Shannon V. Davidson et al.  
Serial No.: 10/825,345  
Filing Date: 15 April 2004  
Group Art Unit: 2171  
Confirmation No.: 8660  
Title: *System and Method for Computer Cluster Virtualization Using Dynamic Boot Images and Virtual Disk*

**Mail Stop: Amendments**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Dear Sir:

**Information Disclosure Statement**

Applicants submit this Information Disclose Statement (IDS) under 37 C.F.R. § 1.97(b)(3). Applicants respectfully request the Examiner to consider and cite in the examination of this Application the documents listed in the attached Form PTO-1449. Under 37 C.F.R. § 1.98(a)(2)(ii), Applicants have provided copies of all references other than U.S. patents and U.S. patent application publications.

The Commissioner is hereby authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,  
BAKER BOTTS L.L.P.  
Attorneys for Applicants



Travis W. Thomas  
Reg. No. 48,667

Date: 26 March 2008

Correspondence Address:

**Customer Number 45507**

DAL01:946703.1

PTO-1449 <b>Information Disclosure Citation In an Application</b>		Application No. 10/825,345		Applicant(s) Shannon V. Davidson et al.		
		Docket Number 064747.1011	Group Art Unit 2113	Filing Date 15 April 2004		
<b>U.S. PATENT DOCUMENTS</b>						
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
A	6,415,323	07/02/2002	McCanne et al.			
B	6,748,437	06/08/2004	Mankude et al.			
C	7,155,512	12/26/2006	Lean et al.			
D	2005/0256942	11/17/2005	McCardle et al.			
E						
F						
G						
H						
I						
J						
K						
L						
M						
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
N	JP 8227356	09/03/1996	JAPAN			<input type="checkbox"/> YES <input type="checkbox"/> NO
<b>NON-PATENT DOCUMENTS</b>						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
O	Translation of an Office Action of Japanese Patent Office, Application No. 2005/117402, 6 pages, mailed 01/15/2008, received 3/21/08					Received 03/21/2008
P	Masaaki et al., Abstract of JP8227356, 1 page, Published September 3, 1996					Received 03/21/2008
Q						
R						
S						
T						
EXAMINER		DATE CONSIDERED				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

U.S. PATENT AND TRADEMARK OFFICE

DAL01:991782.1

10/825,345	System and method for computer cluster virtualization using dynamic boot images and virtual disk	12-15-2009::23:36:18
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**This application is officially maintained in electronic form. To View: Click the desired Document Description. To Download and Print: Check the desired document(s) and click Start Download.**

### Available Documents

Mail Room Date	Document Code	Document Description	Page Count
10-20-2009	IDS	<b>Information Disclosure Statement (IDS) Filed (SB/08)</b>	1
10-20-2009	FOR	Foreign Reference	24
10-20-2009	FOR	Foreign Reference	23
10-20-2009	NPL	NPL Documents	14
10-20-2009	NPL	NPL Documents	16
10-20-2009	NPL	NPL Documents	7
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10-20-2009	NPL	NPL Documents	3
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10-20-2009	WFEE	Fee Worksheet (PTO-875)	2
10-20-2009	N417	EFS Acknowledgment Receipt	4
10-20-2009	TRAN.LET	Transmittal Letter	2
09-16-2009	CTNF	Non-Final Rejection	15
09-16-2009	FWCLM	Index of Claims	2
09-16-2009	1449	List of References cited by applicant and considered by examiner	2
09-16-2009	1449	List of References cited by applicant and considered by examiner	1
09-16-2009	1449	List of References cited by applicant and considered by examiner	1
09-11-2009	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
09-11-2009	NPL	NPL Documents	3
09-11-2009	N417	EFS Acknowledgment Receipt	2
09-11-2009	TRAN.LET	Transmittal Letter	2
07-10-2009	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
07-10-2009	FOR	Foreign Reference	10
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07-10-2009	NPL	NPL Documents	5
07-10-2009	NPL	NPL Documents	4
07-10-2009	NPL	NPL Documents	11
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07-10-2009	NPL	NPL Documents	1
07-10-2009	NPL	NPL Documents	1
07-10-2009	WFEE	Fee Worksheet (PTO-875)	2
07-10-2009	N417	EFS Acknowledgment Receipt	4
07-10-2009	RCEX	Request for Continued Examination (RCE)	1
07-10-2009	TRAN.LET	Transmittal Letter	2
07-10-2009	WFEE	Fee Worksheet (PTO-875)	1
		Amendment After Final or under 37CFR 1.312, initiated	

07-10-2009	ANE.I	by the examiner.	1
06-26-2009	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
06-26-2009	NPL	NPL Documents	3
06-26-2009	WFEE	Fee Worksheet (PTO-875)	2
06-26-2009	N417	EFS Acknowledgment Receipt	2
06-26-2009	TRAN.LET	Transmittal Letter	2
06-25-2009	ANE.I	Amendment After Final or under 37CFR 1.312, initialed by the examiner.	1
06-25-2009	CTAV	Advisory Action (PTOL-303)	3
06-17-2009	A.NE	Amendment After Final	1
06-17-2009	CLM	Claims	9
06-17-2009	REM	Applicant Arguments/Remarks Made in an Amendment	7
06-17-2009	N417	EFS Acknowledgment Receipt	2
06-17-2009	WFEE	Fee Worksheet (PTO-875)	1
04-17-2009	CTFR	Final Rejection	12
04-17-2009	892	List of references cited by examiner	1
04-17-2009	FWCLM	Index of Claims	2
04-17-2009	SRFW	Search information including classification, databases and other search related notes	1
04-17-2009	SRNT	Examiner's search strategy and results	1
04-17-2009	1449	List of References cited by applicant and considered by examiner	3
04-17-2009	1449	List of References cited by applicant and considered by examiner	1
03-31-2009	TRAN.LET	Transmittal Letter	2
03-31-2009	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
03-31-2009	NPL	NPL Documents	13
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03-31-2009	NPL	NPL Documents	6
03-31-2009	NPL	NPL Documents	11
03-31-2009	NPL	NPL Documents	6
03-31-2009	NPL	NPL Documents	3
03-31-2009	NPL	NPL Documents	12
03-31-2009	NPL	NPL Documents	14
03-31-2009	WFEE	Fee Worksheet (PTO-875)	2
03-31-2009	N417	EFS Acknowledgment Receipt	3
03-19-2009	TRAN.LET	Transmittal Letter	2
03-19-2009	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
03-19-2009	FOR	Foreign Reference	78
03-19-2009	FOR	Foreign Reference	44
03-19-2009	NPL	NPL Documents	17
03-19-2009	NPL	NPL Documents	15
03-19-2009	NPL	NPL Documents	13
03-19-2009	NPL	NPL Documents	12
03-19-2009	NPL	NPL Documents	9
03-19-2009	NPL	NPL Documents	13
03-19-2009	NPL	NPL Documents	18
03-19-2009	NPL	NPL Documents	15
03-19-2009	NPL	NPL Documents	10
03-19-2009	NPL	NPL Documents	18
03-19-2009	NPL	NPL Documents	17
03-19-2009	NPL	NPL Documents	17
03-19-2009	NPL	NPL Documents	10
03-19-2009	NPL	NPL Documents	16
03-19-2009	NPL	NPL Documents	29
03-19-2009	NPL	NPL Documents	14
03-19-2009	NPL	NPL Documents	13

03-19-2009	NPL	NPL Documents	8
03-19-2009	NPL	NPL Documents	16
03-19-2009	NPL	NPL Documents	17
03-19-2009	NPL	NPL Documents	4
03-19-2009	NPL	NPL Documents	9
03-19-2009	NPL	NPL Documents	16
03-19-2009	NPL	NPL Documents	14
03-19-2009	NPL	NPL Documents	5
03-19-2009	NPL	NPL Documents	4
03-19-2009	NPL	NPL Documents	5
03-19-2009	NPL	NPL Documents	5
03-19-2009	NPL	NPL Documents	3
03-19-2009	NPL	NPL Documents	3
03-19-2009	WFEE	Fee Worksheet (PTO-875)	2
03-19-2009	N417	EFS Acknowledgment Receipt	6
01-23-2009	A...	Amendment/Req. Reconsideration-After Non-Final Reject	1
01-23-2009	SPEC	Specification	2
01-23-2009	CLM	Claims	10
01-23-2009	REM	Applicant Arguments/Remarks Made in an Amendment	6
01-23-2009	WFEE	Fee Worksheet (PTO-875)	2
01-23-2009	N417	EFS Acknowledgment Receipt	2
01-23-2009	WFEE	Fee Worksheet (PTO-875)	1
07-23-2008	CTNF	Non-Final Rejection	10
07-23-2008	892	List of references cited by examiner	2
07-23-2008	SRNT	Examiner's search strategy and results	6
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	Bibliographic Data Sheet	1
07-23-2008	1449	List of References cited by applicant and considered by examiner	3
07-23-2008	1449	List of References cited by applicant and considered by examiner	4
07-23-2008	1449	List of References cited by applicant and considered by examiner	2
07-23-2008	1449	List of References cited by applicant and considered by examiner	2
07-23-2008	1449	List of References cited by applicant and considered by examiner	2
07-23-2008	1449	List of References cited by applicant and considered by examiner	2
07-23-2008	1449	List of References cited by applicant and considered by examiner	1
07-23-2008	1449	List of References cited by applicant and considered by examiner	1
07-23-2008	SRFW	Search information including classification, databases and other search related notes	1
07-23-2008	FWCLM	Index of Claims	2
07-23-2008	1449	List of References cited by applicant and considered by examiner	1
		List of References cited by applicant and considered by	

07-23-2008	1449	examiner	1
07-23-2008	1449	List of References cited by applicant and considered by examiner	1
03-26-2008	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
03-26-2008	TRAN.LET	Transmittal Letter	1
03-26-2008	NPL	NPL Documents	1
03-26-2008	NPL	NPL Documents	6
03-26-2008	FOR	Foreign Reference	12
03-26-2008	N417	EFS Acknowledgment Receipt	2
03-14-2008	TRAN.LET	Transmittal Letter	1
03-14-2008	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
03-14-2008	N417	EFS Acknowledgment Receipt	2
01-30-2008	TRAN.LET	Transmittal Letter	1
01-30-2008	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
01-30-2008	NPL	NPL Documents	8
01-30-2008	NPL	NPL Documents	16
01-30-2008	NPL	NPL Documents	6
01-30-2008	NPL	NPL Documents	10
01-30-2008	N417	EFS Acknowledgment Receipt	3
01-09-2008	TRAN.LET	Transmittal Letter	1
01-09-2008	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
01-09-2008	FOR	Foreign Reference	117
01-09-2008	NPL	NPL Documents	6
01-09-2008	NPL	NPL Documents	4
01-09-2008	NPL	NPL Documents	7
01-09-2008	NPL	NPL Documents	5
01-09-2008	NPL	NPL Documents	2
01-09-2008	NPL	NPL Documents	2
01-09-2008	NPL	NPL Documents	2
01-09-2008	N417	EFS Acknowledgment Receipt	3
09-14-2007	TRAN.LET	Transmittal Letter	1
09-14-2007	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	1
09-14-2007	NPL	NPL Documents	7
09-14-2007	FOR	Foreign Reference	4
09-14-2007	N417	EFS Acknowledgment Receipt	2
05-18-2007	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	2
05-18-2007	FOR	Foreign Reference	69
05-18-2007	NPL	NPL Documents	11
05-18-2007	NPL	NPL Documents	19
05-18-2007	NPL	NPL Documents	23
05-18-2007	N417	EFS Acknowledgment Receipt	2
03-26-2007	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	2
03-26-2007	N417	EFS Acknowledgment Receipt	2
03-02-2007	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	2
03-02-2007	NPL	NPL Documents	51
03-02-2007	NPL	NPL Documents	6
03-02-2007	N417	EFS Acknowledgment Receipt	2
12-29-2006	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	2
12-29-2006	NPL	NPL Documents	2
12-29-2006	NPL	NPL Documents	1
12-29-2006	N417	EFS Acknowledgment Receipt	2
11-13-2006	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	4
11-13-2006	NPL	NPL Documents	12
11-13-2006	NPL	NPL Documents	14
11-13-2006	NPL	NPL Documents	37
11-13-2006	NPL	NPL Documents	8
11-13-2006	NPL	NPL Documents	33
11-13-2006	NPL	NPL Documents	4

11-13-2006	NPL	NPL Documents	65
11-13-2006	NPL	NPL Documents	12
11-13-2006	NPL	NPL Documents	9
11-13-2006	NPL	NPL Documents	4
11-13-2006	NPL	NPL Documents	57
11-13-2006	NPL	NPL Documents	59
11-13-2006	NPL	NPL Documents	59
11-13-2006	NPL	NPL Documents	58
11-13-2006	NPL	NPL Documents	64
11-13-2006	NPL	NPL Documents	122
11-13-2006	NPL	NPL Documents	122
10-13-2006	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
10-13-2006	N417	EFS Acknowledgment Receipt	2
06-14-2006	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
06-14-2006	NPL	NPL Documents	2
06-14-2006	N417	EFS Acknowledgment Receipt	2
05-08-2006	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
05-08-2006	NPL	NPL Documents	11
05-08-2006	NPL	NPL Documents	8
05-08-2006	NPL	NPL Documents	11
05-08-2006	NPL	NPL Documents	11
03-20-2006	WFEE	Fee Worksheet (PTO-875)	1
03-08-2006	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
03-08-2006	NPL	NPL Documents	6
03-08-2006	NPL	NPL Documents	175
03-08-2006	NPL	NPL Documents	9
03-08-2006	NPL	NPL Documents	6
03-08-2006	NPL	NPL Documents	18
02-06-2006	STATUS.LET	Request for status of Application	1
10-10-2005	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
10-10-2005	FOR	Foreign Reference	32
10-10-2005	FOR	Foreign Reference	15
10-10-2005	NPL	NPL Documents	11
10-10-2005	NPL	NPL Documents	14
10-10-2005	NPL	NPL Documents	16
10-10-2005	NPL	NPL Documents	129
08-15-2005	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
08-15-2005	NPL	NPL Documents	11
08-15-2005	NPL	NPL Documents	30
08-15-2005	NPL	NPL Documents	11
08-15-2005	NPL	NPL Documents	17
08-01-2005	STATUS.LET	Request for status of Application	1
08-01-2005	IDS	Information Disclosure Statement (IDS) Filed (SB/08)	3
08-01-2005	NPL	NPL Documents	10
08-01-2005	NPL	NPL Documents	8
08-01-2005	NPL	NPL Documents	26
08-01-2005	NPL	NPL Documents	11
08-01-2005	NPL	NPL Documents	31
08-01-2005	NPL	NPL Documents	3
04-22-2005	CTMS	Miscellaneous Action with SSP	1
04-15-2005	RESC	Rescind Nonpublication Request for Pre Grant Pub	1
04-15-2004	TRNA	Transmittal of New Application	4
04-15-2004	PG.NONPUB.RQ	Nonpublication request from applicant.	4
04-15-2004	136A	Authorization for Extension of Time all replies	4
04-15-2004	SPEC	Specification	23
04-15-2004	CLM	Claims	12
04-15-2004	ABST	Abstract	1

04-15-2004	DRW	Drawings-only black and white line drawings	2
04-15-2004	OATH	Oath or Declaration filed	4
04-15-2004	WFEE	Fee Worksheet (PTO-875)	1
04-15-2004	WFEE	Fee Worksheet (PTO-875)	1
04-15-2004	WFEE	Fee Worksheet (PTO-875)	1
04-15-2004	WFEE	Fee Worksheet (PTO-875)	1

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